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## EDITORIAL

Doubtless all are now aware of the further increase of Sales Tax on electronic component parts that, for the purposes of taxation, could be used in the construction or maintenance of radio receivers, and/or paging or public address systems and amplifiers to which is connected a gramophone motor and pickup and/or radio tuner.

The fact that such components are taxed under "luxury items" is brought about by the classification of radio receivers and amplifiers, etc., as musical instruments. This in itself is sufficiently absurd to have merited greater foresight by the Taxation Authority. The imposition of the same high rate of tax on the parts and accessories which, unlike accessories of a piano or guitar or other forms of musical instruments, find a wide and important use in the vast field of electronics, as applied particularly to Amateur Radio—greatly concerns us.

In opposition to the original increment in taxation as affecting communications receivers and the parts and accessories thereof used by Amateurs in the pursuits of their investigations and research into the mysteries of radio wave propagation and reception—an activity that the Government and the people of Australia know only too well as having been the means of saving lives, homes, and property during many times of emergency—the Wireless Institute of Australia on behalf of its 3,000 odd members made representation to the Commissioner of Taxation—as did every other section of the radio and electronic industry—for the consideration of a tax remission by the Federal Treasurer when preparing his Budget for 1951-52.

So far as the Institute was concerned every indication was given that consideration of its request would be undertaken by the Federal Treasurer, the Institute having pointed out the great National advantage of having a ready pool of semi-trained technical

personnel together with emergency operating networks which could be immediately available to the Government or the Armed Services in times of emergency—National or otherwise.

To say the least of it our representation brought a most disappointing and disheartening result; not only did Sales Tax again increase, but it increased to the extent of showing a marked disregard of the National worth of the Amateur of Australia by the Authorities.

Radio receivers are now classified under the fourth schedule together with toys, games, puzzles and fireworks! A perusal of this schedule indicates that, with the exception of radio receivers, very few parts and accessories of the items in the schedule could be used in anything other than the article for which they were intended. But in the case of radio receivers almost every component used in its manufacture is also used somewhere in electronic equipment which is still taxable at the lowest tax rate. What inconsistency!

But the answer is an easy one, without any variation of the express provisions of the Law being involved. In the same way that personnel engaged in the manufacture or maintenance of electronic equipment—as distinct from receiving equipment—can purchase these same component parts at the lower tax rate on the production of some form of authority, so should Amateurs be able to do so on production of their license granted them by the Postmaster-General's Department or any other kind of form suitable to the Taxation Department which the Institute would be pleased to print at its own expense.

Let's hope that 1952 will bring forth some sane reasoning by the Authorities so that the Amateurs of Australia can play their part in time of emergency as they have been able to do in the past.

—FEDERAL EXECUTIVE

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# Built-in Clamp Tube Modulation for the Command Transmitter

BY P. PAGE,\* VK2APP, AND O. L. BROWN,† VK3ARL

The portable capabilities of a Command Transmitter are at first consideration very great, and for c.w. operation this is so; the only external equipment necessary being the power supply. But for satisfactory portable or mobile phone operation compactness becomes somewhat more difficult if an external modulator is to be used. There is also the current drain to be considered in mobile operation.

After experimentation with various types of modulation using transformers, it was found that to build one onto the chassis of the Command and still retain the r.f. stability was almost an impossibility. The only other alternative, therefore, was an external modulator or something using no more than two tubes and no coupling transformers. The only system that appeared readily to fit the bill was the Clamp Tube System of Screen Grid Modulation.

The two tubes used were a 6L6 modulator tube and some triode pentode, in this case a 6P7 as a speech amplifier driver.

The first necessity was to remove all components under the chassis used in connection with the crystal calibration check originally incorporated in the Transmitter. This necessitated the removal of all resistors under the centre and right hand sockets at the back of the transmitter, and the filament trap wiring for the magic eye. The series parallel filament resistor across the 1625 master oscillator tube was also removed, and this tube given straight 12 volt filament wiring. The filaments of the centre and right hand sockets were connected in parallel, and owing to the fact that 6 volt tubes were used in the modulation section, a 6 volt filament source was supplied in addition to the 12 volt source for the three r.f. tubes in the transmitter.

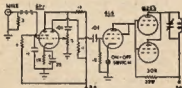
Both relays and their appropriate wiring were removed. The parallel cathodes of the 1625 output tubes were taken direct to ground. The high tension to the plate of the master oscillator tube—which originally went through a pair of contacts on the relay under the chassis—was taken direct from its pin on the input socket to a suitable tipoint, bypassing the relay, and the unnecessary wiring removed.

Some of the pins on the two sockets used for modulation were originally used as tiepoints for other circuits. These, where necessary, are removed and connected direct, either to the appropriate pin on the input socket or to some other common tiepoint.

The centre, or crystal socket, is now used to mount the 6L6, which is triode connected, the plate and screen being tied together and taken directly to one of the screen pins of the parallel 1625s in the p.a. The grid bias resistor of the 6L6 is 500,000 ohms; from grid to

earth and the cathode is taken through an s.p.s.t. switch, directly to earth. The grid of the 6L6 is also taken through a 0.01 uF. tubular condenser to the triode plate of the 6P7. The grid of this section has a half megohm potentiometer from grid to ground. The moving arm of the pot is taken through a 0.01 uF. tubular condenser to the pentode plate. Both triode and pentode plate loads are 1.0 meg. The pentode screen load is a 1.0 meg., the cathode of the 6P7 goes to ground through 1,000 ohms, bypassed with a 25 uF. electrolytic.

The grid of the pentode section is taken along the right hand side, under the chassis and round to the bottom left hand corner of the front panel in shielded cable, where it is attached to the microphone jack, which has a 3.0 meg grid bias resistor across it. The microphone jack is of the unshielded closed circuit type, though any suitable jack shielded or otherwise could be used; in this case an old i.f. can, cut in half, was used to shield the jack.



The normal screen voltage supply to the 1625s is entirely removed, and screen current is obtained through a 30,000 ohm 25 w. dropping resistor from the common B+ supply. This resistor is mounted under the chassis at the left hand ends of the p.a. tuning condensers. A small right angle metal shield was made to enclose the under chassis modulator components at the rear of the transmitter so that, when the bottom chassis cover is in position, the modulator circuitry is almost entirely shielded from the rest of the transmitter.

The aerial tuning coil was removed from behind the front panel and a false panel was fitted over the rectangular window to support a small plate meter for tuning purposes. The ends of the variable link in the Command tank coil were brought out to two insulated terminals on the front left hand side for antenna connection.

To obtain independent p.a. tuning, apart from the ganged p.a. and oscillator tuning arrangements, the pre-set p.a. condenser under the chassis was unlocked by removing the screw from the locking lug, and a small extension shaft was brought through the side of the chassis.

The set-up as used for s.c. operation has two 100 Ma. power supplies on an external chassis—one at 300 volts for the transmitter p.a. and modulating section, the other at 220 volts or less for the master oscillator and the Command Receiver.

The filament supply is obtained by connecting in series the two 6.3 volt windings available on the transformers to give 12.6 volts for the oscillator and p.a. tubes in the transmitter and the 12 volt tubes in the receiver. The 6.3 for the two modulator tubes is obtained from the junction of the two windings. This arrangement appears to cause no undue heating of the transformers when used with a 3 amp. winding from 0-6 volts and a 2 amp. winding from 6-12.

The potentiometer for modulation gain control is a combination s.p.s.t. switch and pot, as used in some b.c. receivers. The switch section was used in the cathode of the 6L6, thus necessitating only one external control to serve two purposes. The control is mounted in the right hand side of the chassis, at the rear, directly beneath the socket of the 6P7. When the switch is in the "off" position, the screen load is effectively removed from the p.a. tubes and the transmitter should be tuned up in this position. The switch should be in the "off" position for c.w. operation if required.

## Disc Recording from Wire or Tape Recordings

Often an outside-start recording is required and it is found much more trouble to cut than the inside-start. If the material to be disc recorded is already recorded on wire or tape, there is an easy way out of this trouble.

Just play the wire or tape recording backwards at normal speed, feeding into the cutting head amplifier. The recording turntable is run backwards and cutting is done from inside to outside.

When the disc is put on a normal clockwise turntable it will play from outside to inside in a perfectly normal and satisfactory way.

However, many types of wire recorders won't play backwards at normal speed. To overcome this trouble, the wire can be re-wound as follows. Instead of threading up in the usual way, put the recorded wire spool on a dummy spindle and connect the start of the wire to an empty spool on the re-wind spindle. Run on reverse or re-wind until all wire is transferred to this spool, then thread up normally.

Running the recorder forwards will now be pulling the wire through backwards as far as the recorded material is concerned. Due to wire build-up effects, the speed of the wire at the ends will be slightly different than when recorded, but in practice will not be noticeable.—B. Hannaford, VK2AAL.

\* "Stoneridge," Mont Eagle, N.S.W.  
† Darlington Road, Stawell, Victoria.

# TELEVISION MADE EASY

## Part v.—Further Notes on the Receiver

BY KEN WALL AND JOHN JARMAN,\* VK3ADA

So we've found that the vision section of a television receiver consists of r.f. amplifier and mixer (both common to sound and vision), a vision i.f. channel (consisting of about four stages, and using an i.f. around the 15 Mc. mark) and a vision detector. Now the detector is a diode type, similar to that used in common sound receivers, but for one important difference.

During the high frequencies (up to about 6 Mc.), representing picture detail, which the detector must separate from carrier, the load resistor cannot be by-passed by a simple capacitor, as we find in a sound receiver. Instead, the by-passing (of the surplus r.f.) is done by a complicated circuit, as is shown in Fig. 1, which is designed to by-pass the carrier frequencies only, allowing the video frequencies to pass through the load resistor.

Our detector must also be connected, so as to ensure that the picture on our screen will be positive, and not negative (like the negative of a photo) and, here in Australia, where negative modulation is to be used, we must ensure that the picture brightness will decrease when carrier amplitude increases. Now look at Fig. 2, which shows two basic detector circuits, with the filter system omitted. If the detector be coupled directly to the cathode ray tube, the circuit "B" would be the "shot." This is called the "anode above ground" detector, whose output voltage becomes more negative (thereby reducing picture brilliance) when carrier amplitude increases.

But suppose a video amplifier stage be inserted between detector and c.r.t. This amplifier will reverse the phase of the detector's output, so that the "cathode above ground" circuit, shown in Fig. 2A, must be used.

Now refer back to the block diagram, given in the last article. We see that if a video amplifier be used, it must be provided with a d.c. restorer.

Let's study the video amplifier first of all. Remember the detector's output varies in frequency from 25 c.p.s. (frame frequency) to about 6 Mc. All of these frequencies must be evenly amplified, so that our video amplifier must have a flat response over a wide band.

Well, it is basically a resistance-capacitance coupled amplifier but provided with means of extending the



A Typical Video Detector.



Fig. 2. Two basic detector circuits, with the filter system omitted.

Fig. 2A. Cathode above ground circuit, which must be used if a video amplifier stage be inserted between detector and c.r.t.

Fig. 2B. Anode above ground circuit, which would be the "shot" if the detector be coupled directly to the cathode ray tube.

Fig. 2C. Cathode above ground circuit, which must be used if a video amplifier stage be inserted between detector and c.r.t.



normal bandwidth. One type is shown in Fig. 3, the small "peaking" coil "C" working in conjunction with the natural capacitance of the circuit to help maintain uniform amplification at the high and low ends of the video band.

Now for this d.c. restorer. We have learnt that the detector's output consists of a combination of a.c. and d.c., the former representing the picture detail, and the latter the average light and shade, e.g., the difference between dusk and bright sunlight.

The video amplifier, however, amplifies only the a.c. component, rejecting the d.c., so that before the video output can produce a picture, the lost d.c. component must be replaced. How can this be done? Well take a look at Fig. 4.

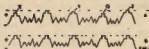


Fig. 4A—Video Output before D.C. Restoration.

Fig. 4B—After D.C. Restoration.

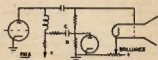
At Fig. 4A we see the signal just as it leaves the video amplifier. At "B" is the signal required to make the picture. What is the difference? Simply that the synchronising pulses (which represent maximum signal amplitude) all have the same level. Just think of it. Because the synch. pulses have a fixed amplitude, which is kept constant at the transmitter, it follows that if their amplitude be kept at a fixed level in the receiver's output, the rest of the video signal will assume correct shape.

So you don't believe me? Then look at it this way. Suppose the signal at Fig. 4A be applied directly to the grid of the c.r.t., together with a self-adjusting bias voltage so that whenever the maximum output falls below a certain level (such as at points X, Y, and Q), negative bias will decrease, permitting the signal level to increase, whereas at Z, where amplitude tends to exceed the required level, the negative bias will increase, so that the points of maximum signal (i.e. the synch. pulses) will be kept at the same level.

Now consider differences in signal, between these peaks, and the troughs between them. Is there any reason why these differences would be changed by the video amplifier? And for that matter, any reason why the amplitude difference between the troughs and synch. pulses in Fig. 4B should not be the same as those in the original signal? Well, if we are all agreed on this point, we will see at once that our lost d.c. component can be restored, by simply varying the grid bias on the c.r.t. so as to keep the peaks (i.e. the synch. pulses) at a fixed level. Try and reason this out before reading further.

So our d.c. restorer is simply a "self adjusting" grid bias source, similar to

a grid-leak detector. The basic circuit is shown in Fig. 5. Suppose the signal shown in the Fig. 4A be applied between points X and Y. At point Z (Fig. 4A) the charge on C (Fig. 5) will be increased, and since this represents the negative bias applied to the grid, the peak level will be reduced, whereas at X, Y, and Q less electrons will be drawn through the diode (Fig. 5), so that the negative bias will be reduced and the peak level therefore raised.



The location of this restorer in the circuit, of course, varies with different types of receivers, but its operation is the same. One system is shown in Fig. 6 (compare this with Fig. 3). Of course, for proper operation, the R/C combination must have the correct time constant.

Speaking of picture brilliance, it might be mentioned at this stage that the brilliance control, on a television receiver, operates by varying the grid bias on the c.r.t. One type is also illustrated in Fig. 6.

So much for the picture signal, and how it varies the brilliance of a spot of light, but to produce a picture, this spot must be kept moving, so we will now deal with deflection.

In articles one and three we learned that the spot of light on the receiver screen traces out 625 horizontal lines, in zig-zag fashion, 25 times per second or, to be more exact, 312½ lines, 50 times per second (refer back to article three, if necessary). This is achieved by applying two deflecting forces to the electron beam (in the c.r.t.) at the same time.

The first of these is the horizontal deflecting force which moves the beam from left to right at a uniform rate, then rapidly back to its starting point. This process is repeated at line frequency, i.e. 15625 times per second.

The other force moves the spot from top to base of screen at uniform rate, then rapidly back to its starting point. This is repeated at field frequency, 50 times per second.

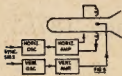
Now consider a c.r.t. using magnetic deflection. The position of the electron beam (and spot) at any instant, depends upon the value of current flowing through the deflection coils. To move the spot in the manner described above, we must pass through each set of coils a current which increases from minimum to maximum at a uniform rate, then falls rapidly back to minimum, the process being repeated at the required frequency. In other words, the required current, if graphed, would have the "saw-tooth" wave form, as shown in Fig. 7.

Each pair of deflection coils must therefore be coupled to a special oscillator which will supply this type of

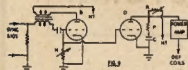
\*A11428 I.A.C. Jarman, J. B., c/o A.R.D.U., R.A.A.F., Woomera S., South Australia.

current. Now these oscillators vary considerably in design, in fact, new improvements are developed almost daily. The objects are:—

1. Reduction in number of components for economy and compactness;
2. Improved linearity (uniform rate of increase being difficult to achieve in practice);
3. More accurate synchronisation (to be dealt with in next article).



Space will permit the description of only one system here, but they all follow the same general layout, shown in Fig. 8. Now some of you will have guessed that the old thyratron oscillator provides the answer. Well, admittedly, it is used in older sets, but it is now being superseded by circuits which are more stable, and permit better synchronisation (this will be explained in the next article) so we will temporarily regard it as obsolete, and study the "blocking oscillator" type, as shown in Fig. 9.



Capacitor C (Fig. 9) is charged by h.t. voltage through resistor R, so that the voltage across C will rise from minimum to maximum. Before this voltage reaches maximum, however, C must be rapidly discharged, so that process can be repeated. This is done by the discharge tube D (a vacuum type) which is normally biased to cut off, but periodically made conductive, by the sharp positive pulses supplied by the blocking oscillator, tube B.

The voltage across C (Fig. 9) is therefore "saw tooth" type and can be used to drive the deflection amplifier, but there is one important point to note. The current through the deflection coils must be as shown in Fig. 7. Now to overcome the effects of the coil's inductance, which tends to oppose changes in current, our driving voltage must be shaped as is shown in Fig. 10.



This is done by inserting the small resistor r in series with C (Fig. 9). Since the ratio A/a equals approximately R/r, our voltage can be adjusted in wave form to produce the required deflection current, and of course our deflection amplifier must be designed to preserve this wave form.

## A G8PO Without Any "Cut and Try"

BY ROTH JONES,\* VK3BG

Probably no antenna has created so much enthusiasm and argument over the last few years than the G8PO unidirectional beam.

Some members of the Amateur Radio Fraternity have had remarkable results with it; others have achieved little and pulled the antenna down in disgust, satisfied it would never work.

To the latter I say: "Don't give up in disgust. Read this article and put up another antenna to these simple formulae and it WILL work."

Unfortunately no ready formulae have been applied to the antenna and most users have had to be content with "cut and try" methods. This has involved hours and hours of patient work and the purchase of long lengths of twin lead.

Since the antenna was first introduced to this country by my esteemed friend Lieut. Commander E. H. ("Ted") Ironmonger, R.N. (ex-G8PO and ex-VK3WU) the designs which have followed have fallen into three chief categories. They are:—

- (1) Single wire flat top with 72 ohm co-axial cable feed line and delay section as used by VK3WU himself;
- (2) A three wire flat top with 300 ohm twin lead feed and delay lines; and
- (3) Single wire flat top with either the 150 ohm or 72 ohm twin lead feed line and paralleled one eighth lengths of 72 ohm and 150 ohm leads as delay lines.

Each system has its own specific merits. Co-axial feed line does not give the balance experienced with the twin lead, is expensive and always difficult to work and cut. The three wire flat top version is heavier and uses 300 ohm twin lead which is prone to moisture effect and breakage due to wind. The type used by the writer is extremely light, is not affected by rain to any great extent and does not move unduly in windy weather.

I claim no credit for the design, particulars of which were given by Harry Chapman, VK3GU, a veteran in our ranks who is still as enthusiastic over antennae as in the olden days.

Main secret of the system is the antenna loading coil and condenser which allows the whole antenna to be tuned, thus placing the standing waves where they should be.

It is assumed the centre impedance of the two dipoles spaced one-eighth wavelength is about 40 ohms. If the feed lines are an even multiple of quarter waves (less the velocity factor), then the impedance at the end of these lines will be 40 ohms irrespective of the transmission line impedance.

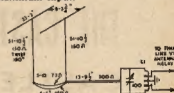
Therefore to match this impedance two separate one-eighth lengths (one 72 ohm twin lead and the other 150 ohm) are in parallel for the delay line, thus giving an impedance of approximately 40 ohms.

A quarter wave length of 300 ohm lead is then taken from the junction

of either feed line and delay line (depending of course which direction the antenna is firing). This is purely a step up transformer raising the impedance from 20 ohms (the 40 ohms at the end of the lead in and 40 ohms delay line being in parallel) to around 4,500 ohms.

This is connected directly across the ends of the tuned circuit, the tap for loading being taken one turn either side of the centre. To secure balance, the centre of the coil can be earthed or if a split stator is used its rotor can be connected to earth.

Tuning is simple and quick provided two hands are used. The coupling coil condenser is tuned for maximum current and the final for minimum. The former will be much sharper if the system is working satisfactorily. After a little bit of juggling, a point will be found where the point of maximum and minimum current will coincide. Extremely light coupling will suffice for maximum input.



L1—10 turns 2" diameter, self support.

Velocity Factor of Ribbon:—

300 ohms	0.83
150 "	0.78
72 "	0.7

Several systems can be used for switching but to avoid loss and keep the impedances constant, the writer has assembled four octal sockets and wired them so that if four small Bulgin plugs or crystal holders are plugged in they will be connected together. These plugs are also affixed to the ends of the feed lines, the two delay sections and the 300 ohm quarter wave transformer.

To change direction of firing the plug affixed to the 300 ohm quarter wave length has only to be switched from one socket to the other.

This allows the whole system to be switched quickly and, if necessary, the antenna used as a single section W8JK by discarding the delay lines and connecting the feed lines together after twisting one 180 degrees.

**Results.** Conditions have been very poor and erratic over the last two months the antenna has been installed, but sufficient DX has been worked to convince the writer the beam has a good two S points gain over a very efficient long wire which has worked more than its share of DX during the last few years.

The antenna has been cut for 14075 Kc. allowing band edge working for c.w. and phone in the 14100-14150 Kc. region.

It is fixed and directed at Europe where most stations report strength as above average. As an example, seven Europeans replied to a short CQ DX on a recent busy Sunday afternoon.

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# Australian National Field Day, 1952

## RULES

1. The National Field Day Contest of the Wireless Institute of Australia will be held on Sunday, 25th January, 1952. The Contest will be of twelve hours duration commencing at 0900 hours E.A.S.T. and concluding at 2100 hours E.A.S.T.

2. A portable station is limited to portable stations operating within the Commonwealth and its Mandated Territories on a power not exceeding 25 watts with the antenna connected.

3. A portable station for the purpose of the Field Day is defined as one whose Power is not obtained from either private or public mains, shall not be located closer than five miles to the home location of the operator(s) and shall not be situated in any occupied dwelling.

4. No apparatus is to be set up or erected on the site of the portable station earlier than 24 hours prior to the commencement of the Contest. A station may be moved from one site to another within the same State during the period of the Contest.

5. More than one operator may be used in the operation of the portable station provided that all operators are licensed Amateurs.

6. DX Operation may be on any of the recognised Amateur bands and more than one transmitter may be used, providing that one transmitter only is used at any one time.

7. When conducting c.w. stations will use the call "CQ FD" and phone stations will use the call "CQ Field Day" to indicate they are portable. Stations are directed to follow the requirements for portable operation as defined in the P.M.G.'s Handbook for the Guidance of Amateur Operators.

8. SECTIONS. The Contest is divided into three sections, namely, Open, C.W. and Phone. The Open Section shall consist of both phone

and c.w. Participants may enter all Sections and a separate Log is entered in each case.

9. Logs must be forwarded through the Division to reach the Federal Contest Committee, Box 1734JJ, G.P.O., Sydney, not later than the 27th February, 1952.

10. Logs must show the location of the portable station(s), names and call signs of the operator(s) in the party, a description of the transmitter(s), receiver(s), antenna(s), and the power supplies. The power input to the final stage(s) with the antenna(s) connected (which must not exceed 25 watts) must also be shown.

11. Log entries are to be in the following order: Date, time (E.A.S.T.), station worked, Amateur band used, report sent, report received, contact points claimed, bonus points claimed, QTH of station worked and portable operator's call. A summary at the conclusion of the Log will facilitate checking.

12. The completed Log must be signed by each of the operators with a statement that the P.M.G.'s Regulations and the Rules of the Contest have been observed and that the operator agrees to accept the decision of the Federal Contest Committee on all matters pertaining to the Contest.

13. SCORING. For the purposes of the Field Day, the following constituent VK Districts: VK1, VK3, VK4, VK5 (South Australia), VK3 (Northern Territory), VK4, VK1, and VK3.

14. Serial numbers must be exchanged during the Contest as follows: The first three figures will be the RST in the C.W. Section followed by the serial number of the contact commencing with any number between 1 and 99 for the first contact and increasing by one for each successive contact. In the Phone Section the first two figures will be the RST and then as in the C.W. Section. In addition the QTH must also be given.

15. Points will be awarded as follows—

(a) For contacts with a fixed station within the Commonwealth (Rule 13) including the competitor's State ..... 1

(b) For contacts with other portable stations in the contest within the same State ..... 2

(c) For contacts with stations in Asia, North America and Oceania (outside the Commonwealth, Rule 13) ..... 5

(d) For contacts with stations in Europe ..... 5

(e) For contacts with stations in Africa and South America ..... 5

(f) For contacts with other portable stations outside the State ..... 10

(g) A bonus for each Continent worked on each band. For Oceania the contest must be outside the Commonwealth (Rule 13) add to the final score ..... 25

(h) A bonus for each new State or Country worked on 50 Mc., add to the final score ..... 25

(i) A special bonus for each Interstate or Overseas contact on 144 Mc., add to the final score ..... 50

16. AWARDS. An attractive certificate will be awarded to the outright winners in each State, namely, Open, C.W. and Phone. Certificates will also be awarded to the winner in each State in each Section. Further, Certificates can be awarded at the discretion of the Federal Contest Committee. The outright winners are not eligible for State Awards.

17. Certificates will be awarded to each operator of the winning stations provided each operator has contacted 25% of the stations contacted.

18. In addition to the Certificates for the outright winners, an order to the value of Three Guineas to be divided between the placemen in each section, will be awarded for the purchase of a trophy or equipment.

## The Jubilee Relay Results

The Jubilee Relay has been won by Stan Coleston, VK5XK, with the final score of 27,440 points, closely followed by Keith Schieleber, VK4KX, with 26,480 points.

9XK used three bands, whilst 4KX used two bands but on the second band had only one contact.

ZLJIA was the highest scoring station in New Zealand with 25,592 points and in addition had the greatest number of contacts in VK-ZL, viz., 555, but could only manage 64 countries.

The interest shown in ZL was not very great and as far as Australia is concerned it is quite safe to say that twice as many stations were heard relaying the message than the number who actually sent on Logs.

The DK worked by both 9XK and 4KX was outstanding and a lot of credit is due to these chaps for keeping known the Jubilee VK-ZL DX Contest in some of the remote corners of the globe.

Call Bands C'tries Contacts Points  
VK9XK - - - 3 - 80 - 343 - 27440  
VK4KX - - - 2 - 80 - 331 - 26480  
ZLJIA - - - 3 - 54 - 343 - 25592  
VK2AMR - - - 2 - 78 - 276 - 21528  
VK2AIA - - - 4 - 94 - 219 - 20356  
ZLJAG - - - 1 - 62 - 218 - 19188  
VK5DR - - - 1 - 88 - 244 - 14183  
VK3LN - - - 1 - 84 - 141 - 9024  
VK5SR - - - 1 - 79 - 121 - 4719  
VK5R - - - 1 - 44 - 105 - 4630  
VK2IE - - - 1 - 38 - 81 - 3078  
VK5LC - - - 1 - 39 - 78 - 2825  
VK5RU - - - 1 - 39 - 64 - 2496

In VK2, Tom Stroud 2AMR did a fine job having 278 contacts in 78 countries, all on phone. 2AMR was closely followed by 2ARA who used four bands. The first three places in VK3 were filled by country Amateurs who followed up the good work done in R.D. Contest by country members. JAYE also decided to show the gang that he could work DX as well as taller to country members and ran up 30 countries in 30 contacts.

In Victoria, Len Moncur, 3LN, did a fine job on phone with 141 contacts in 64 countries. DXs man 3JE also contacted more than a reasonable performance. Oh yes, of course, he has a few vee beams but nevertheless 14,153 points

on 14 Mc. is pretty good going. George Luxon 5RK, if my memory serves me rightly, made all his contacts in the small hours of the morning. SLC wants a separate award for phone and c.w. and also commented on the manner in which the message was sent forward; thanks for your remarks OM.

Jimmy Rumble, 6RU, threatens the Eastern States in the Jubilee VK-ZL.

From the Logs, 3,283 messages were handled and it is safe to say that every country in the world saw of the Jubilee and the VK-ZL Contest.

### NEW SOUTH WALES

Call	Bands	C'tries	Contacts	Points	
VK1AMR	- - -	3	78	278	21528
VK2AIA	- - -	4	94	219	20356
VK3LN	- - -	1	44	105	4630
VK4VW	- - -	1	37	80	2220
VK5AYE	- - -	2	30	80	1900
VK5MT	- - -	1	34	82	2228
VK3IOA	- - -	1	19	27	513
VK2JH	- - -	1	17	20	510
VK3ASJ	- - -	1	15	18	370
VK3JZ	- - -	1	14	17	412
VK3AIRV	- - -	1	5	22	110
VK2ITI	- - -	1	18	10	100
VK3DR	- - -	1	18	10	100
VK3IRA	- - -	2	7	8	83

### VICTORIA

Call	Bands	C'tries	Contacts	Points	
VK3LN	- - -	1	64	141	8024
VK5JE	- - -	1	39	38	81
VK3CB	- - -	3	28	78	3044
VK3XK	- - -	1	24	65	1512
VK3ADW	- - -	1	24	12	120
VK3ACW	- - -	1	11	15	185
VK3ASB	- - -	1	7	17	118
VK3AMR	- - -	1	18	18	80
VK3AJZ	- - -	1	4	4	18
VK3ABD	- - -	1	2	3	6
VK3BS	- - -	1	2	2	4

### QUEENSLAND

Call	Bands	C'tries	Contacts	Points	
VK4KX	- - -	2	80	331	26480
VK4KW	- - -	1	15	31	315

### SOUTH AUSTRALIA

Call	Bands	C'tries	Contacts	Points	
VK5DR	- - -	1	58	244	14152
VK5RX	- - -	1	39	151	4719

Call	Bands	C'tries	Contacts	Points	
VK5SL	- - -	1	39	78	2925
VK5CE	- - -	1	4	4	31
VK5EH	- - -	1	2	2	4

### WESTERN AUSTRALIA

Call	Bands	C'tries	Contacts	Points	
VK5HU	- - -	2	39	84	2490
VK5VW	- - -	1	39	65	1440

### FAPUA

Call	Bands	C'tries	Contacts	Points	
VK9XK	- - -	3	80	343	27440

### NEW ZEALAND

Call	Bands	C'tries	Contacts	Points	
ZL1ADX	- - -	1	18	23	369
ZL1QW	- - -	2	8	9	73

Call	Bands	C'tries	Contacts	Points	
ZL1HG	- - -	1	3	2	4

Call	Bands	C'tries	Contacts	Points	
ZL1QW	- - -	2	8	9	73

Call	Bands	C'tries	Contacts	Points	
ZL1IA	- - -	3	84	353	23062
ZL1NQ	- - -	2	16	34	544

Call	Bands	C'tries	Contacts	Points	
ZL1AG	- - -	3	62	251	15132

—Federal Contest Committee.

## SUBSCRIPTIONS

• Please pay your Subscriptions PROMPTLY when due. Failure to do so may result in the loss of valuable issues of "Amateur Radio." High costs of production make it necessary to limit the number of extra copies printed each month.

## VK3WI ACCURATE FREQUENCY TRANSMISSIONS FOR 1952

During last year, four Accurate Frequency Transmissions were made from VK3WL. These transmissions were made possible with the help of the Frequency Measuring Station at Mont Park, and the thanks of the Victorian Division are hereby extended to those boys at that Centre.

Through a suggestion by one of our members, a slight change will be made in two of the Accurate Frequency Transmissions for this year.

For example, on the first 40 metre transmission on Thursday, 28th February, VK3WI will commence on 7000 Kc. with a band edge marker, which will enable members to set their dial calibrations made on the last broadcast of 1961, then VK3WI will shift to 7010, 7030, and so on at 20 Kc. intervals.

By providing 20 Kc. points from 7000 Kc. on one broadcast and 20 Kc. points commencing at 7010 Kc. on the next broadcast, calibration will in future be possible at 10 Kc. intervals on the 7 Mc. band.

On 3.5 Mc. band the same principle will apply, the alternate 30 Kc. intervals giving 15 Kc. points by the use of the two broadcasts this year.

Dates for the next twelve months are as follows:—

- **Thursday, 28th February, 7 Me. Band.** Band edge marker on 7000 Kc., then 7010 Kc., 7030 Kc., etc., at 20 Kc. intervals.
- **Thursday, 29th May, 3.5 Me. Band.** At 30 Kc. intervals, commencing at 3500 Kc.
- **Thursday, 28th August, 3.5 Me. Band.** Band edge marker at 3500 Kc., then 3515 Kc., 3545 Kc., etc., at 30 Kc. intervals.
- **Thursday, 27th November, 7 Me. Band.** At 20 Kc. intervals, commencing at 7000 Kc.

The operating procedure and times of transmissions are as follows: 9.5 p.m. — phone transmission on 7196 Kc., with a general call, and information on what is about to take place. 9.15 p.m. — VK3WI changes frequency to 7000 Kc. and calls as follows on c.w. at 12 w.p.m. "AFT (three times), DE VK3WI (three times), then — — — QRG — — — 7000 Kc. (twice)." The key is then held down for one minute, then "QSY 7020 Kc. (twice), DE VK3WI (once), AR."

### DX C.C. LISTING

PHONE					
Call		No. Ctr.	Call		No. Ctr.
VK3EE	"	10 158	VK6KW	"	4 145
VK3JD	"	1 155	VK4KS	"	9 135
VK3BZ	"	3 154	VK3LN	"	11 132
VK4NR	"	12 151	VK6DD	"	5 125
VK6RU	"	2 143	VK3JE	"	7 123

C.W.

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	200	VK3CN	1	101
VK3PH	15	167	VK3SA	38	150
VK4EL	9	163	VK3VW	4	143
VK4HR	8	154	VK3QL	5	141
VK3EO	3	132	VK3JB	10	122

**OPEN**

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	213	VK3DI	2	170
VK4HR	7	190	VK3CX	1	187
VK8RU	8	181	VK6KW	13	165
VK3JE	13	180	VK4EL	10	163
VK3HG	3	171	VK4FJ	32	165

The transmitter then commences operation on 7020 Kc. and the procedure is repeated until 7200 Kc. is reached, after which there will be a phone transmission on 7196 Kc. and if corrections are immediately available, they will be broadcast at this time, also on the following Sunday broadcast over VK3WL.

The 80 metre transmissions will be the same as the former, only the voice will call on 3598 Kc. and then the checks will start on 3.5 Kc. and finish on 3.8 Kc. with the exception that the checks will be given every 30 Kc.

## ACCURATE FREQUENCY TRANSMISSION RESULTS

The following is the official results of the Accurate Frequency Transmission from VK3WI on 22nd November, 1951, on the 7 Mc. band:—

Year	Kilocycles	cycles low	cycles high
7000	45		
7020	0		
7040	50		
7060	40		
7080	4		high
7100	16		
7120	0		
7140	8		
7160	8		
7180	14		
7200	6		

## AMATEUR CALL SIGNS

FOR MONTH OF OCTOBER, 1951

### ADDITIONS

- 1YK—South Wales  
 1ZV—P. H. Sara, Hyde St., Bellingn.  
 1ZHY—E. E. Hayles, 8 Smith St., Wollongong.  
 1ZWH—H. L. Wright, 13 Carrington St., Bexley.  
 1ZAU—W. Schreuer, 29 Smith St., Summer Hill.  
 1ZV—Victoria  
 1GT—G. E. Lewis, 10 Henderson St., West Brunswick.  
 1JC—T. K. Tennant, 25 Wilson Avenue, Tatura.  
 1SR—C. H. Brown, 10 Newry, Gippsland.  
 1AEB—A. E. Bridge, McBean Ave., Lower Macedon.  
 1AJJ—J. R. Kling, 1 Kardella St., East Malvern.  
 1APK—P. C. Perkins, 143 McKillop St., Geelong East.  
 1AXR—C. G. Williams, 6 Woodfull St., East Geelong.  
 1Z—Western Australia

## Greenland

- 4RI—R. H. Gordon, 17 Goldring St., Rising Sun,  
 Townsville.  
 4TG—A. H. Burton, Mobile; S.S. "Cape Leeu-  
 win"; Postal: Stewart St., Clayfield,  
 Brisbane.  
 South Australia  
 5JJ—J. C. Jennison, 2 Cross St., Enfield.  
 5OK—L. F. Brice, Flat 2, Cecil Mansions, 14  
 Rundle St., Kent.  
 Western Australia  
 6TK—T. W. Kelly, 39 Princep St., Norseman.  
 6VB—V. R. Birks, Robinson St., Broome.  
 Tasmania  
 7CJ—A. E. Finch, 12 Augusta Rd., New Town,  
 Hobart.

## ALTERATION

- VK— New South Wales  
2LB-14 Landers Road, Lane Cove.  
2OE-55 Fitzroy Street, Grafton.  
2OI-17 Oaks Avenue, Dee Why.  
2OP-41 Beresford Road, Strathfield.  
2ON-30 Byron Street, Inverell.

## THOSE MISSING NOTES

Although correspondents were requested in the November issue to forward copy for the January issue by the 1st December, some failed to do so. We regret that it was not possible to wait for their copy, as we had to go to press earlier than usual for this issue.

2YW—11 Young Street, Wagga Wagga.  
2AWK—477 New South Head Road, Double Bay.

## Vladimir

- 37H—Rutledge Street, Swan Hill.  
37H-3 3091—Crest Street, Ashburton, S.M.I.  
38—3092—Riverside, Burwood, S.I.S.  
3ABF—43 Macallister Street, Sale.  
3ANP—63 York Street, Sale.  
3ACT—81 Denkin Street, Essendon West.  
3AG—3093—Greenfield, Carrum.  
3AKS—147 Patterson Road, Moorabbin, S.30.  
3ANC—Corner Lydiard Road and Dowling  
3ATC—71 Tacker Road, Moorabbin, S.30.  
Queensland  
4AO—348 Buckland Rd. Wavell Heights, Bris-  
bane.  
4TT—80 Levington Av., Eagle Farm, Brisbane.  
South Australia  
4DP—43 Victoria Ter., Kingswood Park.  
4SB—209 Burridge Road, East corner of  
Elision Street, Brooklyn Park.  
5KB—117 Northgate St., Unley Park, Adelaide.  
5TS—Hut 27B, Highfield, Darwin.  
Western Australia  
6RC—Wattle Street, Osborn Park.  
Tasmania  
7MY—“Waterloo” Road, Hobart.

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3.5 Mc. and 7 Mc.

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## MAXWELL HOWDEN

**15 CLAREMONT CRES.,  
CANTERBURY, E.7,  
VICTORIA**

Compiled by J. K. RIDGWAY, VK3CB

NEW SOUTH WALES

ITA is working regularly with IWH although as yet no two-way contact has been established.

In Sydney, activity has decreased somewhat for no apparent reason. Could be the boys are re-building in order to join in the count down. It is possible that the boys are aware of the fact that nobody knows the high end of the band. Jim operates above 147 Mc, so don't forget to watch that way that way. IAT Mc on 144 again; Jim could be creating a false signal. IAT Mc with a 5AKS and pair of 12AT7s. 30A puts out an excellent signal from a stable mood. The 2WJ Mc. New Activity appears to have wandered out on the bottom of the band. The 2WJ Mc may be heard most nights working the cross band to 144. Considering the numbers, it is possible that the boys get hold of recently, this seems surprising.

## REFERENCES

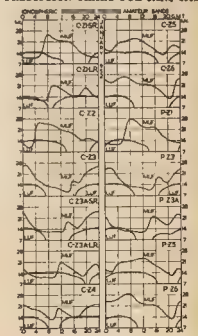
3AKK has been operating portable on 578 Mc. each Thursday evening and he has worked into Melbourne on several occasions. Other stations active on 578 Mc are 3JXA, 3ALH, 3QO, and 3AUX. No information of 288 Mc. activity is to hand, but on 144 Mc. the following stations have been active of recent weeks: 3ABA, 3YR, 3GM, 3ZL, 3GU, 3ASL, 3RK, 3FO, 2BEI, 3UG, 3EN, 3AKK, 3ZD, 3YJ, 3ADU, 3AUZ, 3CP, 3BV.

## SOUTH AUSTRALIA

5MK, 5G, 5ZL, 5JD, 5MK, 5HD, 5GL and 5Q have been heard regularly on 50 Mc. There has been no reports on 385 Mc. activity from the local gang.

With the Xmas festivals behind us, in VKs, wish all v.h.f.'ers. good hunting for and during 1963.

PREDICTION CHART FOR JAN., 1952



## 50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK8WJ	13	3
VK8WY	9	2
VK8WV	9	2
VK8LC	1	1
VK8DW	3	1
VK8MR	4	1
VK8PG	5	1
VK8R	1	1
VK8RT	7	1
VK8AEZ	10	1
VK8XA	11	1
VK8DM	12	1
VK8ACL	14	1
VK8ABC	8	



**BEHIND  
THIS  
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## UCC

## INFORMATION BULLETIN

### MICADISCS



This type of "Micadisc," a smaller version of the larger transmitting types, is designed especially for radio receiver application.

They are of stacked foil construction, contained in a circular-plated brass case which forms one terminal. The case is provided with three lugs in the base which may be mounted directly on the chassis, the lugs bent over and the capacitor may be mounted directly on the chassis at the centre of the disc so desired. The other terminal is formed by a tag-wire at the centre of the disc through which a lead may be passed, soldered and continued on if desired, as depicted in the illustration at left.

Due to the peculiar construction, the current enters and leaves the capacitor radially. With the method of mounting, this achieves in effect a capacitor bush with extremely low inductance and operational characteristics far better than 200 Mc/s, which is ideally suited for bypass and decoupling functions in television and other U.H.F. applications.



Standard capacity values: 200, 300, 500 pF.  
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at 71°C  
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(13)



# DX Countries of the World

The list of countries as hereunder, and as amended from time to time in Federal Notes, is the Official List to be used in connection with the issue of the Australian DX C.C. Award, and is also the official list used by the A.R.R.L. for their award.

The list below shows first the Country, the Zone number in parenthesis (as used by the "CQ" W.A.Z. Award) and the Amateur Prefix.

Aden & Socotra Is. (21) VS9  
Afghanistan (21) ... YA  
Alaska (1) ... KL7  
Albania (15) ... ZA  
Aldabra Islands (39) ... FA  
Algeria (33) ... FA  
Andaman & Nicobar Is. (26) ... VU5  
Andorra (14) ... PX  
Anglo-Egypt Sudan (34) ST  
Angola (38) ... CR8  
Antarctica (13) ... KC4  
Argentina (13) ... LU  
Ascension Island (36) ZD8  
Australia (inc. Tas.) (29, 30) ... VK  
Austria (15) (MB8) ... OE  
Azores Islands (14) ... CT2  
Bahama Islands (8) ... VP7  
Bahrain Island (21) ... MP4  
Baker, Howland & Am. Phoenix Is. (31) ... KB6  
Balearic Islands (14) ... EA6  
Barbados (8) ... VP8  
Bazetoland (38) ... ZB6  
Bechuanaland (38) ... ZS9  
Belgian Congo (36) ... OQ6  
Belgium (14) ... ON  
Bermuda Islands (5) ... VP9  
Bhutan (22) ... CP  
Bolivia (18) ... CP  
Bonin & Volcano Is. (two Jima) (27) ... KG6  
Borneo, Brit. Nth. (28) ... VS3  
Borneo, Netherl'ds (28) ... PK5  
Brazil (11) ... PY  
Brunel (28) ... VS5  
Bulgaria (20) ... LZ  
Burma (28) ... XZ  
Cameroons, French (36) FE  
Canada (2, 3, 4, 5) VE, VO  
Canal Zone (7) ... KZ5  
Canary Islands (33) ... EA8  
Cape Verde Is. (35) ... CR4  
Caroline Islands (27) ... KC8  
Cayman Islands (8) ... VP5  
Celebes & Molucca Is. (28) ... PK6  
Ceylon (22) ... VS7  
Chagos Islands (39) ... VQ8  
Channel Islands (14) ... CE  
China (23, 24) ... (B), C  
Christmas Is. (29) ... ZC3  
Clipperton Is. (7) ... PO8  
Cocos Island (7) ... TI  
Cocos Islands (29) ... ZC2  
Colombia (9) ... HK  
Comoro Islands (39) ... FB8  
Cook Islands (32) ... ZK1  
Corsica (15) ... FC  
Costa Rica (7) ... TI  
Crete (20) ... SV  
Cuba (8) ... CM, CO  
Cyprus (20) (MD7), ZC4  
Czechoslovakia (15) ... OK

Denmark (14) ... OZ  
Dodecanese Is. (Rhodes) (20) ... SV5  
Dominican Republic (8) HI  
Easter Island (12) ... HC  
Ecuador (10) ... SU  
Egypt (34) (MD6) ... SU  
Elire (Irish Free State) EI  
England (14) ... G  
Eritrea (37) (MD3) ... MT6  
Ethiopia (37) ... ET  
Faeroes, The (14) ... OY  
Falkland Islands (13) ... VP8  
Fanning Is. (Washington Is.) ... VR3  
Fiji Islands (32) ... VR2  
Finland (15) ... OH  
Formosa (24) ... CS  
France (14) ... F  
French Equa. Africa (38) FQ  
French India (22) ... FN  
French Indo-China (26) FI  
French Oceania (Tahiti) FO  
French West Africa (35) FF  
Friedrich Nansen Land (40) ... UA1  
Galapagos Is. (19) (HC8)  
Gambia (35) ... ZD3  
Germany (14, 15) ... DL  
Gibraltar (14) ... ZB2  
Gilbert, Ellice & Ocean Is. (31) ... VR1  
Goa (Portugese India) (22) ... CR8  
Gold Coast (and British Togoland) (38) ... ZD4  
Greece (20) ... SV  
Greenland (40) ... OX  
Guadeloupe (8) ... FG  
Guantanamo Bay (8) ... KG4  
Guatemala (7) ... TG  
Guinea, British (8) ... VP3  
Guinea, French, and Guinai (8) ... FY  
Guinea, Netherlands (Surinam) (9) ... PZ  
Guinea, Portugese (35) ... CR5  
Guinea, Spanish (35) ... HH  
Haiti (8) ... HH  
Hawaiian Islands (31) ... KH6  
Heard Island (39) ... VK1  
Honduras (7) ... HR  
Honduras, British (7) ... VP1  
Hong Kong (24) ... VS6  
Hungary (15) ... HA  
Iceland (40) ... TF  
Ifrni (33) ... VU  
India (22) ... VU  
Iran (21) ... EP, EQ  
Iraq (21) (MD6) ... YI  
Ireland, Northern (14) ... GI  
Isle of Man (14) ... GD  
Israel (20) ... 4X4  
Italy (15) ... I  
Jamaica (8) ... VP5  
Jan Mayen Island (40) ... JA  
Japan (25) ... JA  
Jarvis & Palmyra Is. (31) ... KP6  
Java (28) ... PK  
Johnston Island (31) ... E36  
Kenya (37) ... VQ4  
Kerguelon Is. (39) ... FB8  
Korea (25) ... HL  
Kuwait (21) (VT1), MP4  
Laecadvie Is. (22) ... VU4  
Lebanon (20) ... AR8  
Leeward Is. (8) ... VP2

Liberia (35) ... EL  
Libya (34) (MC1, MD1, MD2, MT2) ... HE1  
Liechtenstein (15) ... LX  
Luxembourg (14) ... CR9  
Macau (24) ... VK1  
Macquarie Is. (30) ... FB  
Madagascar (39) ... CT3  
Madeira Islands (33) ... VS1, 2  
Malaya (28) ... VS9  
Maldives Islands (22) ... ZB1  
Malta (15) ... C9  
Manchuria (24) ... KG8  
Marianas Is. (Guam) (27) ... ZS2  
Marion Is. (and Prince Edward Is.) (39) ... XK8  
Marshall Islands (31) ... FM  
Martinique (8) ... VE  
Mauritius (39) ... KM6  
Mexico (6) ... FP  
Midway Island (31) ... 3A2  
Miquelon & St. Pierre Is. (5) ... 3A2  
Monaco (14) ... (JT)  
Mongolian Rep. (Outer) (22) ... CN  
Morocco, French (38) ... EA9  
Morocco, Spanish (33) ... CR7  
Mozambique (37) ... VU7  
Nepal (22) ... PA  
Netherlands (14) ... PJ  
Netherlands West Indies (9) ... FB8  
New Amsterdam Is. (29) ... FK  
New Caledonia (32) ... PK7  
New Guinea, Neth. (28) ... VU9  
New Guinea, Territory of (28) ... YN, Y1  
New Hebrides (32) ... ZL  
New Zealand (32) ... YN  
Nicaragua (7) ... ZD2  
Nigeria (35, 36) ... ZK2  
Niue (32) ... VK9  
Norfolk Island (32) ... LA  
Norway (14) ... ZD6  
Nyasaland (37) ... MP4  
Oman, Trucial (21) ... AP  
Pakistan (22) ... C9  
Palau (Pelew) Is. (27) ... ZC8  
Palestine, Arab (20) ... HP  
Panama (7) ... VK9  
Papua Territory (28) ... ZP  
Paraguay (11) ... OA  
Peru (10) ... DU  
Philippine Islands (27) ... Phoenix Is. Brit. (31) ... VR6  
Pitcairn Island (32) ... SP  
Poland (15) ... CT1  
Portugal (14) ... Gough Is. (38) ... ZD9  
Principe & Sao Thome Is. (36) ... 3V8  
Puerto Rico (8) ... TA  
Reunion Island (39) ... VP5  
Rhodesia, North. (38) ... VQ5  
Rhodesia, Southern (38) ZE  
Rio de Oro (33) (EA8) ... K, W  
Roumania (20) ... CX  
Ryukyu Is. (Okinawa) (25) ... KR6  
Searland (15) ... 9S4  
St. Helena (38) ... ZD7  
Salvador (7) ... YS  
Samoa, American (32) ... KS6  
Samoa, Western (32) ... ZM  
San Marino (15) ... (M1)  
Sarawak (28) ... VS5  
Sardinia (15) ... IS  
Saudi Arabia (Hebjaz & Nejd) (21) ... HZ

Southland (14) ... GM  
Seychelles (39) ... VQ9  
Siam (26) ... HS  
Sierra Leone (35) ... ZD1  
Sikkim (22) ... AC3  
Solomon Is. (28) ... VR4  
Somaliland, British (37) (MD4), VQ6  
Somaliland, French (37) (MD4), FT  
Somaliland, Italian (37) (MS4), MD4  
South Georgia (13) ... VP8  
South Orkney Is. (13) ... VP8  
South Sandwich Is. (13) ... VP8  
South Shetland Is. (13) ... VP6  
Southwest Africa (38) ZS3  
Soviet Union:  
European R.S.F.S.R. (16) ... UA1, 3, 4, 6  
Asiatic R.S.F.S.R. (17, 18, 19) ... UA9, 0  
Ukraine (16) ... UB5  
Belorus'n S.S.R. (16) ... UC2  
Azerbaijan (21) ... UD6  
Georgia (21) ... UF6  
Armenia (21) ... UG6  
Turkmen (17) ... UH8  
Uzbek (17) ... UI8  
Tadzhik (17) ... UJ8  
Kazakh (17) ... UL7  
Kirgiz (17) ... UM8  
Karelo-Finnish Republic (16) ... UN1  
Moldavia (16) ... UO5  
Lithuanis (15) ... UP2  
Latvia (15) ... UQ2  
Estonia (15) ... UR2  
Spain (14) ... EA  
Sumatra (28) ... PK4  
Svalbard (Spitzbergen) (40) ... (LA)  
Swan Island (8) ... KS4  
Swaziland (38) ... ZS7  
Sweden (14) ... SM  
Switzerland (14) ... HB  
Syria (20) ... YK  
Tanganyika Ter. (37) ... VQ3  
Tanger Zone (33) ... EK  
Tannu Tuva (23) ... (TT)  
Tibet (23) ... AC4  
Timor, Portugese (28) ... CR10  
Togoland, French (35) ... FD  
Tokelau Union Is. (31) ... Tonga (Friendly) Is. (32) ... VR  
Transjordan (28) ... ZC1  
Trieste (15) IT, AG2, MF2  
Trinidad & Tobago (9) VP4  
Tristan da Cunha and Gough Is. (38) ... ZD9  
Tunisia (33) (FT) 3V8  
Turkey (20) ... TA  
Turks & Caicos Is. (8) VP5  
Uganda (37) ... VQ5  
Union of S. Africa (38) ZS  
United States of America (3, 4, 5) ... K, W  
Uruguay (13) ... CX  
Vatican City State (15) HV  
Venezuela (9) ... YV  
Virgin Islands (8) ... KV4  
Wake Island (31) ... KW6  
Wales (14) ... GW  
Windward Is. (8, 9) ... VP2  
Wrangell Island (19) ... Yemen (21) ... (4W)  
Yugoslavia (15) ... YU  
Zanzibar (37) ... VQ1

# RAAF

## VACANCIES FOR RADIO ENGINEER OFFICERS

The Royal Australian Air Force invites applications from suitably qualified men for appointment to Permanent and Short Service Commissions as Radio Engineer Officers.



**FOR A PERMANENT COMMISSION** applicants must be normally not more than 25 years of age, and hold a University degree in Engineering (preferably electrical) or in Science (preferably in physics, mathematics, and electronics), or hold a diploma in Engineering (preferably electrical or radio) which gives complete exemption from the Associate Membership Examination of the Institution of Engineers, Australia. Diploma candidates must also have not less than two years' experience in engineering after completion of diploma or have had war service in any of His Majesty's Forces, or be qualified to commence the first year of study for a University degree in Engineering or Science.

**FOR A SHORT SERVICE COMMISSION** (of 4 years with an extension for any period not exceeding three years). Applicants should be under 45 years and have held an appropriate technical appointment as an officer in His Majesty's Services or have completed an apprenticeship or comparable training in radio engineering, followed by at least five years' experience in that trade. Claims of applicants who have held Warrant or N.C.O. rank in a technical mustering will be given special consideration. Officers serving on Short Service Commissions are eligible for Permanent Commissions. All applicants must be British subjects of substantially European descent.

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Flight Lieutenant ..	45/9	55/9
Squadron Leader ..	56/3	66/3
Wing Commander ..	71/3	81/3
Group Captain ..	86/9	96/9

**APPLICANTS** with former commissioned service in His Majesty's Forces will be considered for appointment in his former rank or such rank as may be commensurate with his qualifications and experience. Other candidates will normally be offered the rank of Pilot Officer but higher rank may be determined depending upon qualifications, age, and other attributes. Officers are required to contribute to a pension scheme which provides a generous retiring allowance and covers invalidity or death during service.

For further information write to:—

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# FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: G. GLOVER (VK3AG); Federal Secretary: G. M. WULL (VK2KE); Box 101W, G.P.O., Melbourne.

## NEW SOUTH WALES

President: John Moyle, VK3JU.  
 Secretary: David M. Duff (VK3EO), Box 1794, G.P.O., Sydney.  
 Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.  
 Divisional Sub-Editor: Don E. Knock, VK2NO, 43 Yanko Avenue, Waverley, Sydney.  
 Zone Correspondents: North Coast and Tablelands: H. H. Henson, VK3AHH, Ryan Ave., West Kempsey, Newcastle; Ron McD. Stuart, VK3ASJ, 80 Dumbur St., Stockton, Cessnock and Lakes: Harry Hawkins, VK3JF, 27 Comfort Ave., Cessnock, Western; W. H. Sitt, VK2WH, Camboyana, Forbes; South Coast and Southern: Roy Reynard VK3KQ, 43 Perth St., Yass, Eastern Suburbs, Don Knock, VK2NO, 43 Yanko Ave., Waverley; Northern Suburbs: Harry Powell, VK3ATY, Russell Ave., Wahroonga; St. George: Ch. Coyle, VK3YK, 84 Carlton Cres., Kogarah Bay.

## VICTORIA

President: G. S. G. Semmens, VK3GS.  
 Assistant Secretary: C. Gibson (VK3FO).

## FEDERAL

### MEETING WITH CIVIL DEFENCE MINISTER

On the 16th November, 1951, members of Federal Executive were granted an interview with the Minister for Civil Defence, the Hon. W. S. Kent-Nugha, to discuss with him the aims of civil defence in relation to communications and the part the Amateurs could play.

Mr. Kent-Nugha, who had been at the offices of the W.A. and the Commonwealth, the interview was arranged, acquainted Mr. Kent-Nugha with the details of the general organisation of the W.A. and the Commonwealth, and the communications system available from the transmitting Amateurs of the Commonwealth.

Mr. Kent-Nugha gave a brief but enlightening report on the work of the Bureau for authorisation to form a skeleton civil defence system, which he hopes to put through in January, 1952, and advised of his opinion of the inclusion of the Amateurs in the scheme.

Apart from the necessity for communications in the major cities and metropolitan areas, Mr. Kent-Nugha attached great importance to the Amateur field and bush fire networks in the country areas and considered them a major consideration in any civil defence system. He maintained that food and food supplies was the most important matter in times of emergency, that the highest standard of food and scrub in the country areas at the right time could wreck more on the population than an air-raid on a city.

Mr. Kent-Nugha evinced keen interest in the information given to him regarding the Amateur networks at present in existence and personally requested that he be given full details of these because he considered that ultimately any civil defence system would utilise them to full advantage.

In conclusion he thanked the members of F.E. for the early interest displayed by the Wireless Institute of Australia in offering the service of amateurs, and the keen appreciation of the seriousness of the international situation and the necessity for civil defence communications should a state of emergency arise in this country.

### NATIONAL FIELD DAY CONTEST

In view of the lack of interest in the National Field Day Contest over the last two or three years, notice was sent to all Divisions requesting the opinions of members as to whether the contest should be continued or not. All Divisions agreed to its continuance and a slightly revised set of rules were forwarded to the Divisional and the Federal Contest Committee and are published elsewhere in this issue.

With an eye to the future needs of civil defence communications, it is hoped that members will take a keener interest in this contest and delegate some of their equipment to the construction of light and compact portable stations. Lots of fun to be had in this field day contest, so what is to give it a "fly-by"?

### OTHER COUNTRIES' BANDS AND POWERS

A request to the I.A.R.U. for a list of frequencies, types of emission and power inputs of the Amateur bands in other countries than administrative authorities, brought an admirable

Administrative Secretary: Mrs. S. May, Law Court Chambers, 181 Queen St., Melbourne.  
 Meeting Night: First Wednesday of each month at the Radio Club, 14th, Technical College.  
 Zone Correspondents: C. Wardle, VK3YV, 12 Skene St., Stawell; South Western: K. O'Horne, VK2AKH, Killgrew, Western; North Eastern: T. E. Tennant, VK3JG, 26 Wilson Ave., Tatura; Far North West: M. Poole, VK3GZ, 101 Lennon Ave., Mildura; Eastern: H. O. Keeling, VK3AHK, Thumbarra; North Western: C. Case, VK3ACE, Cummingham Ave., Birchlip.

## QUEENSLAND

President: J. H. Farrell, VK6WJ.  
 Secretary: J. F. Pickles, VK3PF, Box 633, G.P.O., Brisbane.  
 Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.  
 Divisional Sub-Editor: Clive J. Cooke, VK3AC, Kuram Street, Chermida, Brisbane.

## SOUTH AUSTRALIA

President: E. A. Barber, VK3MD.  
 Secretary: G. B. Bowen, VK3XU, Box 1344, G.P.O., Adelaide.

## SILENT KEY

It is with deep regret that we record the passing of—

VK2WK—Rev. W. Kennedy.

letter of thanks for the suggestion and advice that this would be included in the June issue of the I.A.R.U. Calendar. For the interest and information of all members details will be published in a future issue of Amateur Radio.

## BLW MORSE TRANSMITTERS

Five following transmissions from the official W.A. stations at 1900, 1934 K.C. on the days and times shown below—

Sunday—VK3WJ, 2030 to 2100 hours K.E.S.T. Monday—VK3WJ, 2030 to 2050 hours K.E.S.T. Tuesday—VK3WJ, 1930 to 2000 hours K.E.S.T. Wednesday—VK3WJ, not operating at present. Thursday—VK3WJ, 1930 to 2000 hours K.E.S.T. Friday—VK3WJ, 2030 to 2100 hours K.E.S.T.

## FEDERAL QSL BUREAU

### RAY JONES, VK3RJ, MANAGER

Jack Deane, VK3WJ, ex-VK3WJ, drops a word that he recently joined the ranks of the grandpops. States he gave handing away after the first day of the last W contest and cancelled his licence end of August. He'll be back, sometime, if I know him.

SMSAQW, who renders sterling assistance at the Swedish QSL Bureau, mentioned that of over 1000 VK3K 1950 to 1951 cards, he has received only 30 cards in return. Hop on to it fellows, never let it be said, etc.

Eavesdropping on ZK3AA, of Muec, recently returned from a trip to U.S.A., heard the following: "Yes boys, a very wonderful trip. . . Brought back a Collins 222B exciter and an R.M.E. converter and lot of other gear. . . Running pair 24Cs in feed at 1200 volts. . . Only been back one week, haven't re-built my modulator yet or beam, so will be QSL for a while. Only returned here for two years this time so you will see me back in ZL one of these days."

## W.A. ACTIVITIES CALENDAR

- Jan. 5: Conclusion of Ess A. Hall Memorial V.H.F. Contest.
- Jan. 19-20: N.Z.A.R.T. Field Day for 1951.
- Jan. 24-27: W.A. National Field Day Contest.
- Jan. 31: Membership roll of each Division due with F.E.
- Feb. 15: Convention of members from Divisions due with F.E.
- Feb. 28: Convention per capita due with F.E., and of fiscal year of Division.

Meeting Night: Second Tuesday of each month at 17 Wymouth St., Adelaide.  
 Divisional Sub-Editor: W. W. Parsons, VK3PS, 10 Victoria Avenue, Rose Park.

## WESTERN AUSTRALIA

President: J. Campbell-Watson, VK3WJ.  
 Secretary: B. Lang, Box N103, G.P.O., Perth, W.A.  
 Meeting Place: Perth Technical College Annexes, 10 Road, Perth.  
 Meeting Night: Second Monday of each month.  
 Divisional Sub-Editor: R. H. Atkinson, VK3WZ, Box 127, Geraldton, W.A.

## TASMANIA

President: R. O'May, VK3OM.  
 Secretary: L. W. Edwards, VK3LE, Box 311B, G.P.O., Hobart.  
 Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 183 Liverpool St., Hobart.  
 Divisional Sub-Editor: S. Excell, VK3JX, 77 Mole St., Hobart, Tasmania.  
 Zone Correspondents: Northern: C. A. Cullinan, VK3YXW, 12 Monrovia Place, Launceston; North Western: R. K. Wilson, 4 Menai St., Burnie, Tasmania.

these days. Travelled 8,600 miles by plane, car, etc., when in W. Hospitality was wonderful. Some scores of cards returned by the Romanian QSL Bureau. YR3J was a phoney.

In forwarding his QSL, John Gore, ex-VK3P, of Heard Island, new best in V.K., mentions that printing has held up his QSLing but that all cards for his VKI activities have gone forward. Please publicity for this fact. Anyone who dipped out, please come again.

Copied from ZL1ST: "VB3GA returned to ZL early in November and is now living in Auckland, but his ZL call sign has not yet been allocated. In an amusing address at a Branch meeting at Auckland, he spoke of the generosity of the W. K3H, and VE gang. ZBW3AA is scheduled to return to ZL in early December."

George Gruber, VK3WJ, calls of the best known of the G gang, has left for Canada where he will reside for at least one year. George is retaining his G call sign and merely taking leave for the period he is absent. Although he will qualify for a VE licence, he does not expect to establish a station in VE but hopes to be heard frequently from the rigs of his Montreal friends VK3WA, VEK3Z and VE3WV. We will miss you from the band, George, and wish you a healthy and happy sojourn in Canada.

VK3AHA advises that M/Sgt. Wengiere, of TAA3AA and TAF3AS, is now back in U.R.A. active under W3SP1. Any station who contacted the above mentioned stations and has not received a card should write to W3SP1, M/Sgt. Wengiere, 1909 A.A.C. Squadron, Fort Belvoir, W 55, D.C., U.S.A., where that want will be supplied.

An SXN receiver has been sent up by FK3AH to the Bushy Park station in the States. Maybe this will stimulate Andre's interest sufficiently to entice him on to the Amateur bands, all other inducements have failed so far.

## NEW SOUTH WALES

The November meeting of the N.S.W. Division was held at Science House on Friday 23rd at the President John Moyle in the chair. A somewhat sparse attendance might be accounted for by the fact that the evening was a quiet one for the majority of the members and was submitted to the next Federal Convention to be held in Sydney. This was in place of the usual lecture. The only visitors who made their presence known were SRC and STC who were usually welcomed.

After the routine business had been attended to, Wing Commander Charles Bevan presided over the meeting for some twenty-five minutes on the R.A.A.F. active reserve in the hope of interesting members in the joining of the R.A.A.F. outlined the organisation and requirements of the service and the benefits to be obtained by joining up. One of the speakers, because of the nature of the subject, seemed to disappoint the members somewhat, was the very noticeable gap which is appearing between the Amateur and the service countries. The emphasis in the Services, the emphasis is less and less on radio operators and more and more on radio technicians. The Army and the Navy are lacking in. (Continued on Page 15, Column 3)

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(Continued from Page 13)

the rostrum again. J. C. S. President of had been delegated. This chore was done with usual verve and final event of the gave Duff. Convenor of an unopened nine its decapitation and found many willing to an official end at dus began.

donating a shell for the younger attendant at the show (won by a seven weeks' old harmonica) to the Disposal Committee, Wal Nye, Fred Williams, and the others, for running the show, transporting gear and operating the band; to Dave Duff for running two picture shows; and finally to the group who always have a chuckle at the sight of the wreckage which we leave in our wake—the same old Way Way warriors, under Brigadier Hardman. Thanks a lot, folks, for everything you've done for us. We'll be back to make sure it isn't intentional because we want your services again next year for a bigger, brighter and better Way Way Flood Day at the Waterbury Fair.

The only item which provoked anything like a "minor riot" was John Ilegner's motion calling upon Federal Executive to prepare a case for a 250 watt power limit to be placed before the authorities. Most of the speakers were against this, but it passed by a slim majority. John called on all the wags from Forbes to put this before the meeting and brought a great file of correspondence from other Hams in support of it. It proved unnecessary to break the file closed at all. (Unfortunately, the meeting closed at 10.50 p.m.)

Calamity for the month fell to the lot of IDK. of Macksville. Ted was dismantling his three element beam for 30 preparatory of taking up

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From school he entered the F.M.G. Telegraph Department and later studied and qualified for the Ministry of the Merchant Marine. He became a radio operator, connected some experiments with Father Shaw and was active in this direction until the year 1914. In 1925 he was in the U.S. Navy, operating from Rockdale, Lane Cove, Willoughby, and Helensburg. "Bill" was an active Amateur until about three years ago, passed his Amateur License the date of his death. Though mainly a c.w. man, he was heard occasionally on phone for all of his 32 years of age, his example that many of us should have, is follow.



## NORTH EASTERN ZONE

### EASTERN ZONE

After doing a little brass pounding on 20 mx, I wonder why so many 19 reports are given to DX station whose real notes are anything from "T to B" "swirl" "Mind is" or "count 'T'". BARY please note! 3TH is busy with the harvest. 3DI, 3VL and 3US active on 6 mx. 3JB and 3AF are silent these days and 3AGF is active on 40, doing battle with the commercials. 3ALA spends his spare time at fire brigade drill, and the modulator is still unfinished.

The Victorian Division A.O.C.P. Class will commence on Thursday, 17th January, 1952. Morse and Regulations are held on Monday and Theory on Thursday evenings from 8 to 10 p.m. Persons desirous of being enrolled should communicate with the Secretary W.I.A., Victorian Division, 191 Queen Street, Melbourne (Phone FJ 8997) from 10 a.m. to 4 p.m.), or the Class Manager on either of the above evenings.

CENTRAL WESTERN ZONE

GEELONG AMATEUR RADIO CLUB

On 21st November the business was dealt with in double quick time as the syllabus for what was being a hidden Tx hunt. The Tx was hidden by Alf Forsberg, J. Beckingham and Ray Tucker. First to arrive at this location were J. S. Y., J. A. L. G. and Bob Reiss. This party have been having quite a bit of success in these Tx hunts. Their time was 45 minutes and their mileage was also good, being 3.9 miles. Second to come in was J. A. K. E. and party who arrived 10 minutes later their mileage was 7. The Tx was hidden at Montocclair.

The Somerset Dam "Do" to be held on the 29th, 27th and 28th of January, 1958 is taking shape and promises to be very successful. Extracts from the programme have been printed in "QFC" and posted to all members of the Institute, also to all VK4 Hams that are within travelling distance of the Dam. Copies have also been posted to all VK Division Secretaries and members of the VK Division and members of the trip. The organisers, 4GG 4FT, 4HZ and 4PD are working very hard, both on the air

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the job? I include it in the notes without any apology, as it is without doubt one of the finest for Amateur Radio that I have read. It was written by Frank Fisher (W5AHT) and although I have slightly altered it to suit my conditions, my only regret is that I am not capable of writing such an epic. I quote:-

"Looking back, the past is rich in memories for many of us. Memories of other days and of friends, some of them now passed on, who have helped to build the foundation of the W.A.A. as Amateur Radio. Memories of those who laid the foundation stone and who laboured with untiring effort to build upward and upward until the vast foundation to the present enhances we now enjoy. Chieftain in the construction of this structure is the name of the W.A.A. as it is known to the world. It is a structure visualized as becoming recognized throughout Australia, and for that matter throughout the world as typifying and representing the Radio Amateur. His aims, his problems, and his accomplishments. Yes my friends, we have built a structure of which we are justly proud and I regret that I personally contributed but little to its building, and realize that I owe a lot to those who have cheerfully done my share in advance to their era. Perhaps I am weak, but for some of my thoughtlessness in the year to come, because there is still a lot to be done in such a big structure. I am glad to get in with the boys and work. I would be glad to have you come along with me, fellow Hams, as who is about it?"

The members of the W.A.A. are invited to the Council and the opportunity of extending to all fellow Hams, wherever they may be, the compliments of the season, and the renewal of air friendships in this new year.—T.

## WESTERN AUSTRALIA

Well chaps, by the time you read this we'll have had Xmas and New Year (and when I say "read this" I mean just that, but at the time of writing it's still November. So I'll have to cast my mind in two directions—backwards to report what's happened, and forwards to try to forecast what's ahead).

Early in November a representative group of W.A.A., I.R.E., University, Technical College and radio trade people were invited to a review of the year. Destination? Known, and by all accounts it was well worth seeing. I had a smile to myself over George's (my references to him are in the past) comments on the "Apple Pie" he mentally queried and his wife's summing-up of his outlook. Take a woman to see a film about the war and be bored to tears with the whole thing or else sit on the edge of her seat awaiting the shots where they show the latest German tactics. Take a woman to the same film and be'll watch for technical slip-ups and talk about 'em from the time they step outside the theatre till his last self-defence, snore off. Women haven't our critical faculty, that's wot! It did appear though to have taken the producers a lot of time and research to ensure a higher than usual standard of technical accuracy and all who saw it were most impressed.

The R.D. Contest results were announced by George during the dinner. The results were a little disappointing to us, as justification for cheers in the VKT Division and congratulations to VWA. The boys of the "Apple Pie" are to be commended on their enthusiasm for this event and their efforts for 50% return on a lot of effort. There's a bit of a bit alongside that when you remember our slightly larger membership but VKT's Contest as a rule bore the brunt of the heat but I don't think we feel there are many others who feel the same way for it's a contest different to all others where the team spirit really means something. Make a resolution now, chaps. Next year VKT will have a bumper entry of logs and we'll

give VKT a bit of hurry up! We could win the R.D. just as they have, i.e., by getting the major proportion of financial members sending in logs. As for changing the rules—No! (The opinions expressed here are those of the author and not necessarily those of the Division, sounds like election time on the broadcast band doesn't it?)

The November meeting included SAQ's demonstration of the Flying Doctor reply to the Marconi auto-alarm. Instead of sending out twelve long dashes in I-forest-how-many-seconds, the Flying Doctor sends a continuous contact with a base station outside actual dash times switches on the rig, blows itself into a whirling dervish, and the Flying Doctor's amplifier at base does the rest. Relays turn on lights, ring bells (and although Wally didn't say so), probably rev up the doctor's kite, flash a message on the local traffic show screen and blow a siren in the local—er pool-room! At the same meeting GRU's logging and filing system was described by Jim who obviously is a thorough sort of person who likes orderliness in everything he does. I must copy this system. It will be handy for me to know the Christian names of the stations I work (about four of them—regularly). Our President (BJW described how he extended the usefulness of a Class C Wavemeter by including a 1000 ohm resistor, 3.5 Mc. crystal checker and diode monitor and carrier-shift indicator).

Colin Mc. still seems to be in the doldrums most of the time, although EMO gets in there when things are doing; Allan and I go to VKT's business QSO's on the 11th November morning when the band was open. 14 Mc. seems to yield most for the boys these days. 7 Mc. is improving at night for country contacts. I'm not sure about the spot to park. Relative to this I'm opening a fund for the installation of twenty or thirty 600V T. X. tubes in the T. X. and selective audio aimed and operating from 7070 to 7200 Kc. These will be turned on each night and left running till the next few days. I guarantee the 40 metre band would be far safer than to inhibit once again. Offers of 813s, thousand-watt transies and 999s should be addressed to me and the gear will be sent. If the powers-that-be can't (or won't) do anything for us, we'll have to do something ourselves. The band for after-dark contacts in a very patchy manner, sometimes closing up at 7 p.m. and on other nights remaining open till 11 p.m. On one recent night 8RT (Cue) was in QSO with me for about 10 minutes to midnight when the band suddenly collapsed. 2.5 Mc. is still used by a few stalwarts, probably 8RT.

**Scandal Dept.**—Not a great deal this month. I will refer all VKT readers to the trenchant remarks by Len in the editorial and editing column in November "A.R." and to the excellent services rendered by the Mails Branch of the G.P.O. Don't hide your light under a bushel. I will refer to the 14 Mc. or 15 Mc. mix with the "old women" on 7 Mc. or else get out the ball-point and drop me a line; the address is Box 197, Geraldton. I'm not a thought-reader!

SCN should have made an appearance with his beautiful new rig with professional looks inside and out and a professional tank. I don't know if you read this. 8RS says the rockets and black-devil scared the DX out of the 7 Mc. band and he was a little bit worried. I was on c.w. between 2230 and 2330 W.A. time. Early summer brought a water-shortage to Cues through breakdown of the local pumping engine. Len's OK though; he had a handy rig when the water cooled job can't be used. The town was also in the news through the activities of a war who who was a bit of a self—and it went off—with fatal results. Rumours that he was a victim of h.c.I. who could not be used in the 14 Mc. band are hotly denied by 8RT!

8EL catching up on the DX with the new 813 rig which runs on 70 watts to a 300 ohm feed multi-band window.

**STOP PRESS:** Congratulations are extended from the VK6 gang to Mr. and Mrs. VKEWM, of Kalgoorlie for the birth of a daughter born on 24th November, 1951.

## TASMANIA

Welcome visitors at the November Council meeting were Len Crook and the Northern Secretaries, Len Arnold and Len Crook, after their long drive from the northern capital. Plans were formulated for a 144 Mc. relay from Glenorchy to Hobart and back, and eventually, a VK3 hook-up. It seems activity will soon be restored on 144 Mc. band as it is anticipated that the 144 Mc. relay will be particularly on this band. Special attention is to be given to the kiddies at all future field days; believe arrangements are being made to

conduct races, treasure hunts, etc., with some good prizes attached. A lot of effort and time is being spent in the preparation of the field day it is hoped all members will participate in it if the subject is available; still come along and enjoy yourselves.

Owing to these notes being prepared prior to the December meeting, no report can be given on the sale of radio equipment which is to be auctioned by TOM at this meeting. Keen bidding has taken place in the past with several humorous incidents and we trust this disposal of equipment is as readily received as previously. The lecture is to be given by Mr. Crook on the subject of "How to buy and sell nothing new under the sun" and knowing Joe, it should be interesting.

Amateur activity on all bands has been rather slackened due to the poor conditions, but a few of the ardent Hams can be still heard working crossband on 7 Mc. DX is becoming scarce on 40 QRM from commercials would make it impossible to copy very much.

A 100 watt Tx is being planned by TSD, although swotting for one of the commercial tickets may retard progress quite a deal. Parallel 8RTs is the final decided on for completion of the rig. A 60 watt modulator is soon to be in operation at YAG, so we should hear quite a lot from John in the future. Difficult to hear in the "Hush" day morning broadcast has been experienced from this area, 80 mc. is the only band which is heard in the north.

From TAF it is learnt the tape recorder under construction should be completed by the time these notes appear. No doubt on completion, Bob will be able to make use of a lecture on the pitfalls which one can encounter in the preparation of this type of equipment. In the north it seems TCA is again active after a considerable lapse of time. An 801 is the final amplifier and Max's 1.5 modulation is a pleasure to listen to. The rig is still under construction and seems the long wire being used works out OK, from reports received.

Our hard working Secretary, Len Edwards, is busy during the year, during the year and we trust an enjoyable time was had during this period. Talking about Len, saw TLD bustle around the office, and during the year, recently, Len has not been active of late, but as things become further established in the north, it is hoped to see him more active in the QTT. Incidentally, I can read in the local newspaper about the great fishing expedition and glad to hear of your success. Received a number of letters from you, and I hope you're now the feet standing up to it. Don. TKX bustly tuning up his latest hobby in preparation for the year. I hope you launch later on about coming on some time too. It's ages since we have heard you. TGA active on 30, modulating the 21.5 and uses grid modulation with success.

## NORTH WESTERN ZONE

There seems to be a number of new rigs being built here lately. TWA is putting a lot of time into a rack and panel job with a broad band switching exciter and silver plated coils in the tank. I hope to see this rig in the ELs and it won't be long before you are pushing out the "ergs." We don't hear TDM very often, but about the time he does, he's always there. Just to show us that your rig still works. VKB was heard working some very good DX the other day. I hope to see some of the stations being a KL7; good work Ian.

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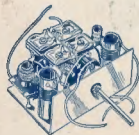
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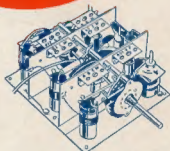
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